

Features

- **Global certificates**
- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14, Class I power unit
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE, NRCAN, Korea K-MEPS, AU/NZ MEPS, EU ErP and CoC Version 5
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fully enclosed plastic case
- Pass LPS
- -30~+70°C wide range working temperature
- LED indicator for power on
- **Various DC plug quick adapter accessory available**
(Plug kit sold separately, please refer to : http://www.meanwell.com/upload/pdf/DC_plug.pdf)
- 3 years warranty

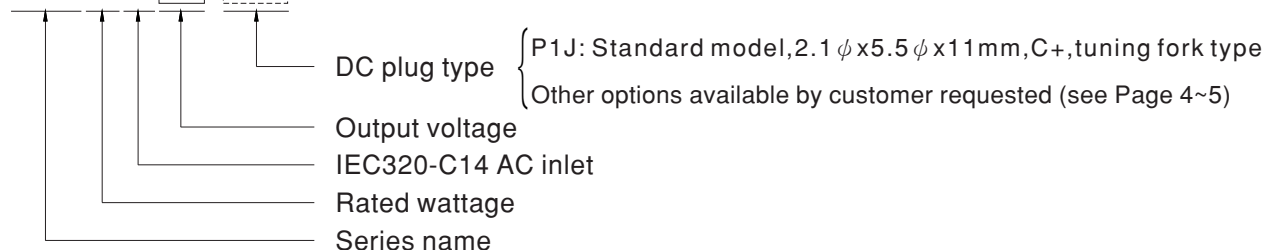
Description

GST60A is a highly reliable, 60W desktop style single-output green adaptor series. This product is a class I power unit (with FG), equipped with a standard IEC320-C14 AC inlet and adopting the input range from 90VAC to 264VAC. The entire series supplies different models with output voltages ranging between 5VDC and 48VDC that can satisfy the demands for various types of consumer electronic devices.

With the efficiency up to 92% and the extremely low no-load power consumption below 0.075W, GST60A is compliant with USA EISA 2007/DoE, Canada NRCAN, Australia and New Zealand MEPS, Korea K-MEPS, EU ErP and Code of Conduct (CoC) Version 5. The supreme feature allows the adaptor to save the energy when it is either under the operating mode or the standby mode. The entire series utilizes the 94V-0 flame retardant plastic case. GST60A is certified for the international safety regulations.

Model Encoding

GST 60 A 05 - P1J



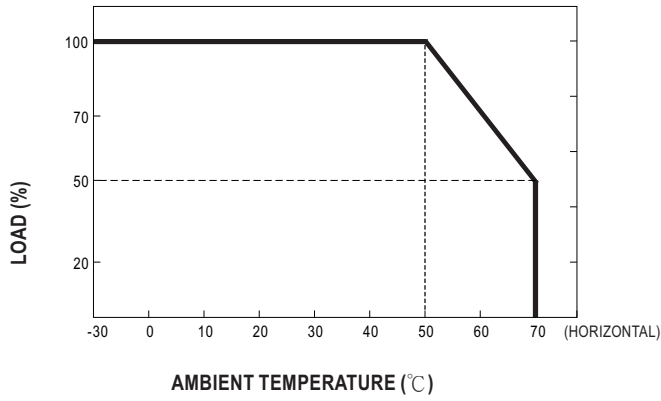
Applications

- Consumer electronic devices
- Telecommunication devices
- Office facilities
- Industrial equipments

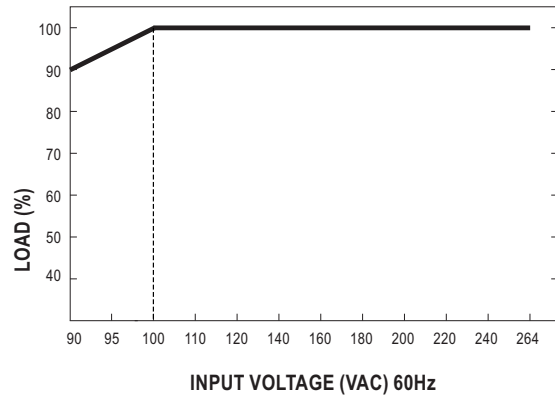
SPECIFICATION

ORDER NO.		GST60A05-P1J	GST60A07-P1J	GST60A09-P1J	GST60A12-P1J	GST60A15-P1J	GST60A18-P1J	GST60A24-P1J	GST60A48-P1J		
OUTPUT	SAFETY MODEL NO.	GST60A05	GST60A07	GST60A09	GST60A12	GST60A15	GST60A18	GST60A24	GST60A48		
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V		
	RATED CURRENT	6A	6A	6A	5A	4A	3.33A	2.5A	1.25A		
	CURRENT RANGE	0 ~ 6A	0 ~ 6A	0 ~ 6A	0 ~ 5A	0 ~ 4A	0 ~ 3.33A	0 ~ 2.5A	0 ~ 1.25A		
	RATED POWER (max.)	30W	45W	54W	60W	60W	60W	60W	60W		
	RIPPLE & NOISE (max.) Note.3	120mVp-p	120mVp-p	120mVp-p	120mVp-p	120mVp-p	150mVp-p	150mVp-p	200mVp-p		
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±3.0%	±2.5%		
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%		
	LOAD REGULATION	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±3.0%	±2.5%		
	SETUP, RISE TIME Note.6	1000ms, 50ms / 230VAC 1000ms, 50ms / 115VAC at full load									
HOLD UP TIME (Typ.)	50ms / 230VAC 15ms / 115VAC at full load										
INPUT	VOLTAGE RANGE Note.7	90 ~ 264VAC 135 ~ 370VDC									
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY (Typ.)	85.5%	88.5%	89%	89.5%	89.5%	89.5%	90.5%	92%		
	AC CURRENT (Typ.)	1.4A / 115VAC 1A / 230VAC									
	INRUSH CURRENT (max.)	Cold start 35A / 115AC 65A / 230VAC									
LEAKAGE CURRENT(max.)	0.75mA / 240VAC										
PROTECTION	OVERLOAD	105 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed									
	OVER VOLTAGE	5.2 ~ 6.8V	7.8 ~ 10.2V	9.4 ~ 12.2V	12.6 ~ 16.2V	15.7 ~ 20.3V	18.9 ~ 24.3V	25.2 ~ 32.4V	50.4 ~ 64.8V		
		Protection type : Shut down o/p voltage, re-power on to recover									
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover									
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20% ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing									
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50°C)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes									
SAFETY & EMC (Note. 9)	SAFETY STANDARDS Note. 8	UL62368-1, CSA C22.2 No.62368-1, TUV EN62368-1, BSMI CNS 14336-1, CCC GB4943.1, PSE J62368-1, AS/NZS 60950.1, BIS IS13252, KC K60950-1, EAC TP TC 004 approved; SIRIM MS IEC62368-1 (optional) approved									
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC									
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH									
	EMC EMISSION	Parameter	Standard						Test Level / Note		
		Conducted emission	EN55032(CISPR32),FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B),CNS13438,GB17625.1 EAC TP TC 020,MSIP KN32						Class B		
		Radiated emission	EN55032(CISPR32),FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B),CNS13438,GB17625.1 EAC TP TC 020,MSIP KN32						Class B		
		Harmonic current	EN61000-3-2,GB9254						Class A		
	Voltage flicker	EN61000-3-3						-----			
	EMC IMMUNITY	Parameter	Standard						Test Level /Note		
		ESD	EN61000-4-2						Level 4, 15KV air; Level 4, 8KV contact		
RF field susceptibility		EN61000-4-3						Level 2, 3V/m			
EFT bursts		EN61000-4-4						Level 2, 1KV			
Surge susceptibility		EN61000-4-5						Level 3, 1KV/Line-Line , 2KV/Line-FG			
Conducted susceptibility		EN61000-4-6						Level 2, 3V			
Magnetic field immunity		EN61000-4-8						Level 2, 3A/m			
Voltage dips , interruption	EN61000-4-11						>95% dip 0. 5 periods, 30% dip 25 periods, >95% interruptions 250 periods				
OTHERS	MTBF	709.7K hrs min. MIL-HDBK-217F(25°C)									
	DIMENSION	125*50*31.5mm (L*W*H)									
	PACKING	0.305Kg; 40pcs/13.02Kg/1.05CUFT									
CONNECTOR	PLUG	See page 4-5 ; Other type available by customer requested									
	CABLE	See page 4-5 ; Other type available by customer requested									
NOTE	<ol style="list-style-type: none"> All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient. DC voltage: The output voltage set at point measure by plug terminal & 50% load. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1μf & 47μf capacitor. Tolerance: includes set up tolerance, line regulation, load regulation. Line regulation is measured from low line to high line at rated load. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. Derating may be needed under low input voltages. Please check the derating curve for more details. The demand for Malaysia safety is processed with the order no. GST60A □ -SIRIM by request. Please contact MEAN WELL for details. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) 										

■ Derating Curve

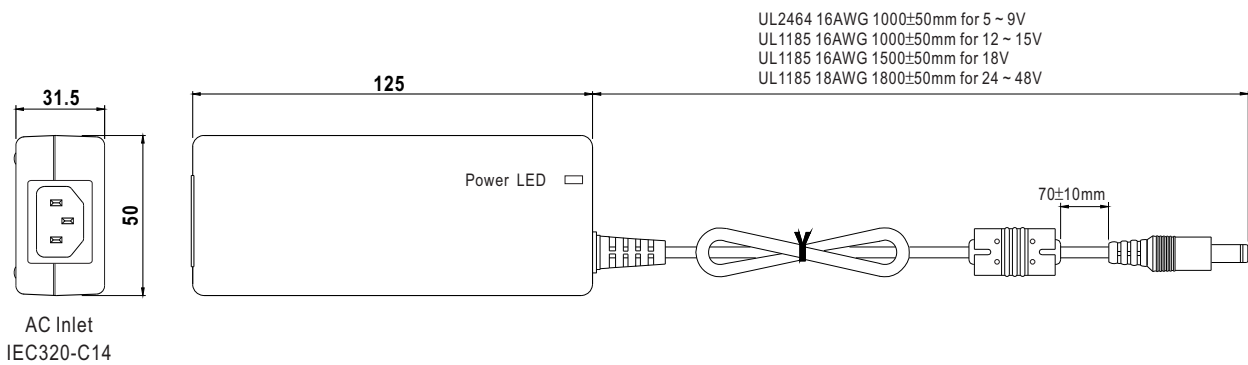


■ Static Characteristics



■ Mechanical Specification

Case No. GS60A Unit:mm



■ DC output plug

◎ Standard plug: P1J


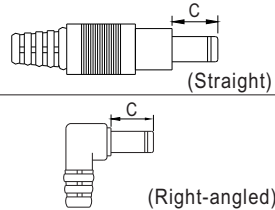

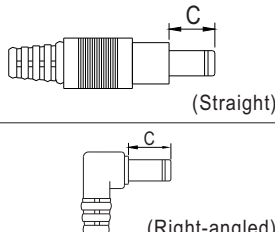

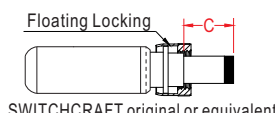



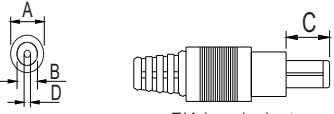
P1J	Pin Assignment
	C ⁺
	Outside Inside -V not connected to AC FG


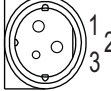
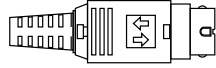

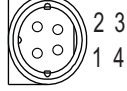
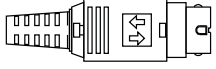


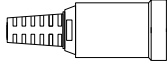




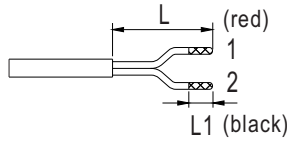
- ⦿ Plug changeable with quick adapter (sold separately)
(Changeable DC plug selection guide : http://www.meanwell.com/upload/pdf/DC_plug.pdf)

For example :



- ⦿ Optional DC plug:

Tuning Fork Style		Type No.	A OD	B ID	C L	Quick Adapter Accessory	
 Current rating: 7.5A max.		P1I	5.5	2.1	9.5	Available	
		P1L	5.5	2.5	9.5		
		P1M	5.5	2.5	11.0		
		P1IR	5.5	2.1	9.5		
		P1JR	5.5	2.1	11.0		
		P1LR	5.5	2.5	9.5		
P1MR	5.5	2.5	11.0				
Barrel Style		Type No.	A OD	B ID	C L	Quick Adapter Accessory	
 Current rating: 7.5A max.		P2I	5.5	2.1	9.5	None	
		P2J	5.5	2.1	11.0		
		P2L	5.5	2.5	9.5		
		P2M	5.5	2.5	11.0		
		P2IR	5.5	2.1	9.5		
		P2JR	5.5	2.1	11.0		
P2LR	5.5	2.5	9.5				
P2MR	5.5	2.5	11.0				
Lock Style		Type No.	A OD	B ID	C L	Quick Adapter Accessory	
 Current rating: 7.5A max.		P2S(S761K)	5.53	2.03	12.06	None	
		P2K(761K)	5.53	2.54	12.06		
		P2C(S760K)	5.53	2.03	9.52		
		P2D(760K)	5.53	2.54	9.52		
Min. Pin Style		Type No.	A OD	B ID	C L	Quick Adapter Accessory	
 Current rating: 5A max.		P3A	2.35	0.7	11.0	Available	
		P3B	4.0	1.7	11.0		
		P3C	4.75	1.7	11.0		
Center Pin Style		Type No.	A OD	B ID	C L	D Center Pin	Quick Adapter Accessory
 Current rating: 7.5A max.		P4A	5.5	3.4	11.0	1.0	None
		P4B	6.5	4.4	11.0	1.4	
		P4C	7.4	5.1	11.0	0.6	

Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment		Quick Adapter Accessory
		PIN No.	Output	
   <p>Current rating: 7.5A max.</p> <p>KYCON KPPX-3P equivalent</p>	R6B	1	+Vo	Available
		2	-Vo	
		3	+Vo	
Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment		Quick Adapter Accessory
   <p>Current rating: 7.5A max.</p> <p>KYCON KPPX-4P equivalent</p>	R7B	PIN No.	Output	
		1	+Vo	Available
		2	-Vo	
		3	-Vo	
4	+Vo			
Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment		Quick Adapter Accessory
   <p>Current rating: 7.5A max.</p> <p>KYCON KPJX-CM-4S equivalent</p>	R7BF	PIN No.	Output	
		1	+Vo	None
		2	-Vo	
		3	-Vo	
4	+Vo			
DIN 5 Pin (male)	Type No.	Pin Assignment		Quick Adapter Accessory
   <p>Current rating: 7.5A max.</p>	R1B	PIN No.	Output	
		1	-Vo	Available
		2	-Vo	
		3	+Vo	
		4	-Vo	
5	+Vo			
Stripped and tinned leads	Type No.	Pin Assignment		Quick Adapter Accessory
  <p>Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>5</u> mm)</p>	by customer	PIN No.	Output	
		1	+Vo	None
2	-Vo			

■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>